

ABSTRACT

A fuel cell includes a hydrogen-permeable metal layer 22 that contains a hydrogen-permeable metal, an electrolyte layer 21 that comprises a solid oxide material exhibiting proton conductivity, and an intermediate layer 23 comprising one or more metal layers that are laminated together with and between the hydrogen-permeable metal layer 22 and the electrolyte layer 21. Here, the metal layer in contact with the electrolyte layer 21 includes a common metal element in common with the electrolyte layer 21.